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\* \* \* \* \* Welcome to STN International \* \* \* \* \*

NEWS	1		Web Page for STN Seminar Schedule - N. America
NEWS	2	MAR 15	WPIDS/WPIX enhanced with new FRAGHITSTR display format
NEWS	3	MAR 16	CASREACT coverage extended
NEWS	4	MAR 20	MARPAT now updated daily
NEWS	5	MAR 22	LWPI reloaded
NEWS	6	MAR 30	RDISCLOSURE reloaded with enhancements
NEWS	7	APR 02	JICST-EPLUS removed from database clusters and STN
NEWS	8	APR 30	GENBANK reloaded and enhanced with Genome Project ID field
NEWS	9	APR 30	CHEMCATS enhanced with 1.2 million new records
NEWS	10	APR 30	CA/CAPLUS enhanced with 1870-1889 U.S. patent records
NEWS	11	APR 30	INPADOC replaced by INPADOCDB on STN
NEWS	12	MAY 01	New CAS web site launched
NEWS	13	MAY 08	CA/CAPLUS Indian patent publication number format defined
NEWS	14	MAY 14	RDISCLOSURE on STN Easy enhanced with new search and display fields
NEWS	15	MAY 21	BIOSIS reloaded and enhanced with archival data
NEWS	16	MAY 21	TOXCENTER enhanced with BIOSIS reload
NEWS	17	MAY 21	CA/CAPLUS enhanced with additional kind codes for German patents
NEWS	18	MAY 22	CA/CAPLUS enhanced with IPC reclassification in Japanese patents
NEWS	19	JUN 27	CA/CAPLUS enhanced with pre-1967 CAS Registry Numbers
NEWS	20	JUN 29	STN Viewer now available
NEWS	21	JUN 29	STN Express, Version 8.2, now available
NEWS	22	JUL 02	LEMBASE coverage updated
NEWS	23	JUL 02	LMEDLINE coverage updated
NEWS	24	JUL 02	SCISEARCH enhanced with complete author names
NEWS	25	JUL 02	CHEMCATS accession numbers revised
NEWS	26	JUL 02	CA/CAPLUS enhanced with utility model patents from China
NEWS	27	JUL 16	CAPLUS enhanced with French and German abstracts
NEWS	28	JUL 18	CA/CAPLUS patent coverage enhanced

NEWS EXPRESS 29 JUNE 2007: CURRENT WINDOWS VERSION IS V8.2,  
CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),  
AND CURRENT DISCOVER FILE IS DATED 05 JULY 2007.

NEWS HOURS	STN Operating Hours Plus Help Desk Availability
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NEWS IPC8	For general information regarding STN implementation of IPC 8

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\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 09:34:33 ON 24 JUL 2007

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'CAPLUS' ENTERED AT 09:34:50 ON 24 JUL 2007

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FILE COVERS 1907 - 24 Jul 2007 VOL 147 ISS 5

FILE LAST UPDATED: 23 Jul 2007 (20070723/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/infopolicy.html>

=> s propylene and (propylene oxide)

189164 PROPYLENE

305 PROPYLENES

189263 PROPYLENE

(PROPYLENE OR PROPYLENES)

189164 PROPYLENE

305 PROPYLENES

189263 PROPYLENE

(PROPYLENE OR PROPYLENES)

1779482 OXIDE

346902 OXIDES

1877577 OXIDE

(OXIDE OR OXIDES)

35870 PROPYLENE OXIDE

(PROPYLENE(W)OXIDE)

L1 35870 PROPYLENE AND (PROPYLENE OXIDE)

=> s l1 and "hydrogen peroxide"

1004439 "HYDROGEN"

6017 "HYDROGENS"

1007792 "HYDROGEN"

("HYDROGEN" OR "HYDROGENS")

218445 "PEROXIDE"

47948 "PEROXIDES"

237304 "PEROXIDE"

("PEROXIDE" OR "PEROXIDES")

120174 "HYDROGEN PEROXIDE"

("HYDROGEN"(W)"PEROXIDE")

L2 530 L1 AND "HYDROGEN PEROXIDE"

=> s l2 and catalyst

769631 CATALYST

767042 CATALYSTS  
983478 CATALYST  
(CATALYST OR CATALYSTS)

L3 327 L2 AND CATALYST

=> s 13 and (fractionate or fractionated or fractioned)

2592 FRACTIONATE  
468 FRACTIONATES  
3039 FRACTIONATE  
(FRACTIONATE OR FRACTIONATES)  
56977 FRACTIONATED  
876 FRACTIONED

L4 1 L3 AND (FRACTIONATE OR FRACTIONATED OR FRACTIONED)

=> s 13 and (distillation or distill)

58616 DISTILLATION  
420 DISTILLATIONS  
58770 DISTILLATION  
(DISTILLATION OR DISTILLATIONS)  
178157 DISTN  
1792 DISTNS  
178900 DISTN  
(DISTN OR DISTNS)  
196572 DISTILLATION  
(DISTILLATION OR DISTN)  
1345 DISTILL  
488 DISTILLS  
1819 DISTILL  
(DISTILL OR DISTILLS)

L5 22 L3 AND (DISTILLATION OR DISTILL)

=> s 15 and continuous

437985 CONTINUOUS

L6 3 L5 AND CONTINUOUS

=> s 15 and wall

314877 WALL  
139546 WALLS  
404628 WALL  
(WALL OR WALLS)

L7 0 L5 AND WALL

=> d 15 abs ibib

L5 ANSWER 1 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN

AB Epoxidn. of propene is conducted by the steps, (a) reacting propene with hydrogen peroxide in the presence of methanol as solvent and a titanium zeolite catalyst and separating propylene oxide from the resulting reaction mixture to obtain a mixture (Ma) comprising methanol, water, at least one carboxylic acid having from 1 to 3 carbon atoms and at least one carbonyl compound having from 1 to 3 carbon atoms, wherein the carbonyl compound is an aldehyde or a ketone, (b) at least partially neutralizing the at least one carboxylic acid comprised in mixture (Ma) by adding a base to mixture (Ma) to obtain a mixture (Mb), ;(c) separating methanol from mixture (Mb) by distillation, (d) at least partially recycling the methanol obtained from (c) into (a).

ACCESSION NUMBER: 2007:729119 CAPLUS

TITLE: A process for epoxidizing propene

INVENTOR(S): Goebbel, Hans-Georg; Bassler, Peter; Teles, Joaquim  
Henrique; Rudolf, Peter; Mueller, Ulrich; Forlin,  
Anna; Schulz, Malte; Weidenbach, Meinolf

PATENT ASSIGNEE(S): Basf Aktiengesellschaft, Germany; The Dow Chemical  
Company

SOURCE: PCT Int. Appl., 48pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007074101	A1	20070705	WO 2006-EP69865	20061218
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			

PRIORITY APPLN. INFO.: IT 2005-MI2491 A 20051227  
US 2005-775780P P 20060223

=> d 15 2 abs ibib

L5 ANSWER 2 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN

A3 A process for the selective epoxidn. of olefins into epoxides comprises contacting the olefin (e.g., propylene) with an oxidant (e.g., hydrogen peroxide) in the presence of a Lewis acid oxidation catalyst (e.g., methyltrioxorhenium), an organic base (e.g., pyridine or its N-oxide), in a solvent system comprising an organic water-miscible solvent (e.g., methanol); and adding a pressurizing gas (e.g., nitrogen) to increase the pressure, where olefin is further dissolved in an organic solvent system to increase the selectivity and yield of the desired epoxide (e.g., propylene oxide).

ACCESSION NUMBER: 2007:458342 CAPLUS  
DOCUMENT NUMBER: 146:441653  
TITLE: Process for selective catalytic epoxidation of olefins into epoxides  
INVENTOR(S): Busch, Daryle H.; Subramaniam, Bala; Lee, Hyun-Jin; Shi, Tie-Pan  
PATENT ASSIGNEE(S): USA  
SOURCE: U.S. Pat. Appl. Publ., 15pp.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2007093666	A1	20070426	US 2006-586061	20061025
WO 2007050678	A2	20070503	WO 2006-US41617	20061025
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,			

KG, KZ, MD, RU, TJ, TM  
PRIORITY APPLN. INFO.: US 2005-729941P P 20051025  
OTHER SOURCE(S): CASREACT 146:441653

=> d 16 1-3 abs ibib

L6 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN  
AB A process for the continuous production of an olefinic oxide such as propylene oxide by direct catalytic oxidation of an olefin with hydrogen peroxide. The process involves successive reaction, distillation, decomposition, phase separation, condensation and distillation with recycle of various streams to provide improved catalyst life and reaction selectivity.  
ACCESSION NUMBER: 2002:142693 CAPLUS  
DOCUMENT NUMBER: 136:184271  
TITLE: Process for the continuous production of an olefinic oxide  
INVENTOR(S): Forlin, Anna; Paparatto, Giuseppe; Tegon, Paolo  
PATENT ASSIGNEE(S): Enichem S.p.A., Italy  
SOURCE: PCT Int. Appl., 30 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002014298	A1	20020221	WO 2001-EP9334	20010813
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
IT 2000MI1882	A1	20020211	IT 2000-MI1882	20000811
IT 1318680	B1	20030827		
CA 2416554	A1	20020221	CA 2001-2416554	20010813
AU 200193763	A	20020225	AU 2001-93763	20010813
EP 1313722	A1	20030528	EP 2001-974175	20010813
EP 1313722	B1	20040630		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2001013261	A	20040113	BR 2001-13261	20010813
AT 270282	T	20040715	AT 2001-974175	20010813
JP 2004525073	T	20040819	JP 2002-519440	20010813
ES 2219565	T3	20041201	ES 2001-1974175	20010813
IN 2003CN00241	A	20050408	IN 2003-CN241	20030210
US 2004181081	A1	20040916	US 2003-344441	20031027
US 7138534	B2	20061121		
PRIORITY APPLN. INFO.:			IT 2000-MI1882	A 20000811
			WO 2001-EP9334	W 20010813
REFERENCE COUNT:	5	THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT		

L6 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN  
AB A continuous process for the epoxidn. of olefins (e.g., methyloxirane from propylene) with hydrogen peroxide using a product-stream predistn. step and unit is described and a process flow diagram presented.

ACCESSION NUMBER: 2001:581493 CAPLUS  
 DOCUMENT NUMBER: 135:137842  
 TITLE: Process for the epoxidation of olefins using a product-stream predistillation step and unit  
 INVENTOR(S): Hofen, Willi; Thiele, Georg; Moller, Alexander  
 PATENT ASSIGNEE(S): Degussa A.-G., Germany  
 SOURCE: Eur. Pat. Appl., 10 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1122248	A1	20010808	EP 2000-102544	20000207
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
CA 2399129	A1	20010809	CA 2001-2399129	20010203
WO 2001057010	A1	20010809	WO 2001-EP1166	20010203
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
BR 2001008063	A	20021105	BR 2001-8063	20010203
EP 1254126	A1	20021106	EP 2001-911586	20010203
EP 1254126	B1	20030702		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
AT 244231	T	20030715	AT 2001-911586	20010203
JP 2003521544	T	20030715	JP 2001-556860	20010203
ES 2202281	T3	20040401	ES 2001-1911586	20010203
ZA 2002005200	A	20030929	ZA 2002-5200	20020627
NO 2002003553	A	20020725	NO 2002-3553	20020725
US 2003114694	A1	20030619	US 2002-203184	20021004
US 6646141	B2	20031111		
PRIORITY APPLN. INFO.:			EP 2000-102544	A 20000207
			WO 2001-EP1166	W 20010203
REFERENCE COUNT:	4	THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT		

L6 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN  
 AB In the title process, C3H6 [115-07-1] is epoxidized by a crude solution of EtC(O)OOH [4212-43-5], prepared from H2O2 and EtCO2H in the presence of very small amts. of strongly acidic catalysts with continuous azeotropic distillation of water. Thus, adding 260 g/h 50% ClCH2CH2Cl solution of EtCO2H and 40.3 g/h 70.7% H2O2 containing 0.33% H2SO4 and 0.5% bipicolinic acid to a reactor held at 90° with azeotropic distillation of H2O gave a 93.5% yield of EtC(O)OOH as a 25.1% solution. This solution was added at 281 g/h together with 98.3 g/h C3H6 to a reactor held at 50°/10 bar to give 350 g/h 13.2% propylene oxide [75-56-9] solution, a yield of 98.3%.

ACCESSION NUMBER: 1983:17188 CAPLUS  
 DOCUMENT NUMBER: 98:17188  
 TITLE: Continuous preparation of propylene oxide  
 INVENTOR(S): Lecoq, Jean Claude; Pralus, Michele; Schirmann, Jean Pierre  
 PATENT ASSIGNEE(S): Produits Chimiques Ugine Kuhlmann, Fr.  
 SOURCE: Eur. Pat. Appl., 20 pp.

CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: French  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 61393	A1	19820929	EP 1982-400477	19820316
EP 61393	B1	19841031		
R: BE, CH, DE, FR, GB, IT, NL				
FR 2502620	A1	19821001	FR 1981-5811	19810324
FR 2502620	B1	19831110		
ES 510697	A1	19830201	ES 1982-510697	19820323
CA 1182122	A1	19850205	CA 1982-399119	19820323
JP 57169477	A	19821019	JP 1982-45725	19820324
JP 02004223	B	19900126		
PRIORITY APPLN. INFO.:			FR 1981-5811	A 19810324

=> s L3 AND DISTILLATION  
58616 DISTILLATION  
420 DISTILLATIONS  
58770 DISTILLATION  
(DISTILLATION OR DISTILLATIONS)  
178157 DISTN  
1792 DISTNS  
178900 DISTN  
(DISTN OR DISTNS)  
196572 DISTILLATION  
(DISTILLATION OR DISTN)  
L8 21 L3 AND DISTILLATION

=> d 18 1-21 abs ibib

L8 ANSWER 1 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN  
AB Epoxidn. of propene is conducted by the steps, (a) reacting propene with hydrogen peroxide in the presence of methanol as solvent and a titanium zeolite catalyst and separating propylene oxide from the resulting reaction mixture to obtain a mixture (Ma) comprising methanol, water, at least one carboxylic acid having from 1 to 3 carbon atoms and at least one carbonyl compound having from 1 to 3 carbon atoms, wherein the carbonyl compound is an aldehyde or a ketone, (b) at least partially neutralizing the at least one carboxylic acid comprised in mixture (Ma) by adding a base to mixture (Ma) to obtain a mixture (Mb), ;(c) separating methanol from mixture (Mb) by distillation, (d) at least partially recycling the methanol obtained from (c) into (a).

ACCESSION NUMBER: 2007:729119 CAPLUS  
TITLE: A process for epoxidizing propene  
INVENTOR(S): Goebbel, Hans-Georg; Bassler, Peter; Teles, Joaquim Henrique; Rudolf, Peter; Mueller, Ulrich; Forlin, Anna; Schulz, Malte; Weidenbach, Meinolf  
PATENT ASSIGNEE(S): Basf Aktiengesellschaft, Germany; The Dow Chemical Company  
SOURCE: PCT Int. Appl., 48pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007074101	A1	20070705	WO 2006-EP69865	20061218
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,				

CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: IT 2005-MI2491 A 20051227  
US 2006-775780P P 20060223

L8 ANSWER 2 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN  
AB A process for the selective epoxidn. of olefins into epoxides comprises contacting the olefin (e.g., propylene) with an oxidant (e.g., hydrogen peroxide) in the presence of a Lewis acid oxidation catalyst (e.g., methyltrioxorhenium), an organic base (e.g., pyridine or its N-oxide), in a solvent system comprising an organic water-miscible solvent (e.g., methanol); and adding a pressurizing gas (e.g., nitrogen) to increase the pressure, where olefin is further dissolved in an organic solvent system to increase the selectivity and yield of the desired epoxide (e.g., propylene oxide).

ACCESSION NUMBER: 2007:458342 CAPLUS  
DOCUMENT NUMBER: 146:441653  
TITLE: Process for selective catalytic epoxidation of olefins into epoxides  
INVENTOR(S): Busch, Daryle H.; Subramaniam, Bala; Lee, Hyun-Jin; Shi, Tie-Pan  
PATENT ASSIGNEE(S): USA  
SOURCE: U.S. Pat. Appl. Publ., 15pp.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2007093666	A1	20070426	US 2006-586061	20061025
WO 2007050678	A2	20070503	WO 2006-US41617	20061025
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

PRIORITY APPLN. INFO.: US 2005-729941P P 20051025  
OTHER SOURCE(S): CASREACT 146:441653

L8 ANSWER 3 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN  
AB A process for the epoxidn. of an olefin (e.g., propylene into propylene oxide) comprises: (A) reacting the olefin with hydrogen peroxide in the presence of methanol as a solvent in at least two reaction stages to obtain a mixture (M-a) comprising the olefin oxide, unreacted olefin, methanol, and water, where between at least two reaction stages, the olefin oxide is separated by distillation; (B) separating unreacted olefin from the mixture (M-a) by distillation to



obtain a mixture (M-bi) comprising at least 80% of olefin and a mixture (M-bii) comprising methanol, water, and  $\geq 7\%$  of an olefin oxide; (C) separating the olefin oxide from the mixture (M-bii) in at least one distillation stage to obtain a mixture (M-ci) comprising  $\geq 99\%$  of an olefin oxide and a mixture (M-cii) comprising water and  $\geq 55\%$  of methanol; (D) separating methanol from the mixture (M-cii) in at least one distillation stage to obtain a mixture (M-di) comprising  $\geq 85\%$  of methanol and  $\leq 10\%$  of water, and a mixture (M-dii) comprising  $\geq 90\%$  of water; where a vapor top stream (Td) obtained from at least one distillation column used in (D) vapor top stream (Td) comprising  $\geq 85\%$  methanol, is used to operate at least partially at least one vaporizer used in at least one distillation column used in at least one of stages (A), (B), and (C).

ACCESSION NUMBER: 2006:708180 CAPLUS  
DOCUMENT NUMBER: 145:145521  
TITLE: Process for the catalytic epoxidation of an olefin using hydrogen peroxide in the presence of methanol with improved energy balance  
INVENTOR(S): Gobbel, Hans-Georg; Schultz, Henning; Schultz, Peter; Patrascu, Renate; Schulz, Malte; Weidenbach, Meinolf  
PATENT ASSIGNEE(S): Basf Aktiengesellschaft, Germany; The Dow Chemical Company  
SOURCE: U.S. Pat. Appl. Publ., 28 pp.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2006161010	A1	20060720	US 2005-36051	20050118
WO 2006077183	A1	20060727	WO 2006-EP50092	20060109
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

PRIORITY APPLN. INFO.: US 2005-36051 A 20050118  
OTHER SOURCE(S): CASREACT 145:145521

L8 ANSWER 4 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

AB The process comprises charging Ti-Si mol. sieve catalyst, solvent, hydrogen peroxide and olefin, reaction, separation of solvent for reuse, separation of un-gasified material from the catalyst before the catalyst returns to the reaction section, separation of un-reacted olefin for reuse, and obtaining epoxidized product.

ACCESSION NUMBER: 2005:532451 CAPLUS  
DOCUMENT NUMBER: 143:175124  
TITLE: Suspension catalyst distillation process for direct epoxidizing alkene  
INVENTOR(S): Du, Zexue  
PATENT ASSIGNEE(S): China Petroleum & Chemical Corporation, Peop. Rep. China  
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, No pp. given  
CODEN: CNXXEV

DOCUMENT TYPE: Patent  
LANGUAGE: Chinese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CN 1542008	A	20041103	CN 2003-122842	20030429
PRIORITY APPLN. INFO.:			CN 2003-122842	20030429
OTHER SOURCE(S):	CASREACT 143:175124			

L8 ANSWER 5 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

AB The catalytic system containing Pd(OAc)<sub>2</sub> and peroxo-heteropoly compound [(C<sub>6</sub>H<sub>13</sub>)<sub>4</sub>N]<sub>3</sub>{PO<sub>4</sub>[W(O)(O<sub>2</sub>)<sub>2</sub>]<sub>4</sub>} (THA-PW<sub>4</sub>) in methanol showed 81.6% selectivity for propylene oxide and propylene conversion of 42.7%, using mol. oxygen as an oxidant in an autoclave reactor at 373 K for 6 h, whereas, Pd(OAc)<sub>2</sub> or THA-PW<sub>4</sub> alone showed low conversion. The catalytic system containing Pd(OAc)<sub>2</sub> and THA-PW<sub>4</sub> in methanol is reusable by vacuum distillation after the propylene oxidation reaction. X-ray diffraction patterns and Pd K-edge EXAFS indicate that Pd<sup>0</sup> species formed by the reduction of Pd(OAc)<sub>2</sub> with methanol acts as an active species in propylene epoxidn. with mol. oxygen. FT-IR spectra of Pd-THA-PW<sub>4</sub> before and after reaction proved that the peroxy oxygen bonds of THA-PW<sub>4</sub> could be regenerated in methanol by mol. oxygen in the presence of Pd, but could not be regenerated in acetonitrile. Methanol mol. reacts with oxygen mol. over Pd<sup>0</sup> species to form a peroxy intermediate HOCH<sub>2</sub>OOH, which regenerates the peroxy oxygen bonds of THA-PW<sub>4</sub> and achieves catalytic turnover for propylene epoxidn. Because the peroxy intermediate HOCH<sub>2</sub>OOH is not stable and finally decompose to CO<sub>x</sub> and H<sub>2</sub>O, a part of methanol is co-oxidized. Hydrogen peroxide also probably formed in situ in the catalytic system during the reaction and plays an important role to regenerate the peroxy oxygen bonds of THA-PW<sub>4</sub>.

ACCESSION NUMBER: 2005:398454 CAPLUS  
DOCUMENT NUMBER: 143:99245  
TITLE: Direct epoxidation of propylene by molecular oxygen over Pd(OAc)<sub>2</sub>-[(C<sub>6</sub>H<sub>13</sub>)<sub>4</sub>N]<sub>3</sub>{PO<sub>4</sub>[W(O)(O<sub>2</sub>)<sub>2</sub>]<sub>4</sub>}-CH<sub>3</sub>OH catalytic system  
AUTHOR(S): Liu, Yanyong; Murata, Kazuhisa; Inaba, Megumu; Mimura, Naoki  
CORPORATE SOURCE: Research Institute for Green Technology, National Institute of Advanced Industrial Science and Technology, AIST, Tsukuba, Ibaraki, 305-8565, Japan  
SOURCE: Applied Catalysis, B: Environmental (2005), 58(1-2), 51-59  
CODEN: ACBEE3; ISSN: 0926-3373  
PUBLISHER: Elsevier B.V.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 143:99245  
REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 6 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

AB A method is described for producing an epoxide (e.g., propylene oxide) comprising: (i) preparation of a stream (S1) containing a compressed liquid alkene (e.g., propylene); (ii) expansion of at a least part of the stream (S1) by heat absorption and at least partial evaporation of the liquid alkene; (iii) reaction of the alkene obtained according to step (ii) with a hydroperoxide (e.g., hydrogen peroxide) in the presence of at least one solvent (e.g., methanol) and at least one catalyst (e.g., titanium silicalite) to obtain a mixture containing the epoxide and the solvent(s).

ACCESSION NUMBER: 2004:902364 CAPLUS  
DOCUMENT NUMBER: 141:380278

TITLE: Method for producing an epoxide  
 INVENTOR(S): Goebbel, Hans-Georg; Bassler, Peter; Teles, Joaquim  
 Henrique; Rudolf, Peter  
 PATENT ASSIGNEE(S): BASF Aktiengesellschaft, Germany  
 SOURCE: PCT Int. Appl., 27 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004092149	A1	20041028	WO 2004-EP4077	20040416
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10317520	A1	20041104	DE 2003-10317520	20030416
CA 2522466	A1	20041028	CA 2004-2522466	20040416
EP 1620415	A1	20060201	EP 2004-727858	20040416
R: AT, BE, CH, DE, DK, ES, FR, GE, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
BR 2004009425	A	20060425	BR 2004-9425	20040416
CN 1791587	A	20060621	CN 2004-80013456	20040416
US 2006276662	A1	20061207	US 2005-553516	20051014
PRIORITY APPLN. INFO.:			DE 2003-10317520	A 20030416
			WO 2004-EP4077	W 20040416
REFERENCE COUNT:	5	THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT		

L8 ANSWER 7 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN  
 AB Propylene oxide is manufactured from propylene  
 and a hydroperoxide in the presence of catalyst with water or  
 alc. as byproduct, which are removed by distillation  
 ACCESSION NUMBER: 2004:537699 CAPLUS  
 DOCUMENT NUMBER: 142:298351  
 TITLE: Distillation process of manufacturing  
 propylene oxide  
 AUTHOR(S): Anon.  
 CORPORATE SOURCE: UK  
 SOURCE: Research Disclosure (2004), 481(May), P661 (No.  
 481051)  
 CODEN: RSDSBB; ISSN: 0374-4353  
 PUBLISHER: Kenneth Mason Publications Ltd.  
 DOCUMENT TYPE: Journal; Patent  
 LANGUAGE: Dutch  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
RD 481051		20040510		
PRIORITY APPLN. INFO.:			RD 2004-481051	20040510

L8 ANSWER 8 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN  
 AB The title oxide comprises reacting propene with H2O2 in a solvent in the  
 presence of a suitable catalyst in order to obtain a mixture (G0)  
 of propylene oxide, solvent, unreacted propene,

unreacted H<sub>2</sub>O<sub>2</sub> and O, (b) the propylene oxide is separated from the mixture (G0) in such a way that a mixture (G1) of unreacted propene and O is obtained, and (c) the mixture (G1) is utilized or burned and the heat used to generate steam for heating distillation columns.

ACCESSION NUMBER: 2003:117813 CAPLUS  
 DOCUMENT NUMBER: 138:153937  
 TITLE: An efficient process for the manufacture of propylene oxide from propene and hydrogen peroxide  
 INVENTOR(S): Teles, Joaquim Henrique; Rehfinger, Alwin; Berg, Anne; Rudolf, Peter; Rieber, Norbert; Bassler, Peter  
 PATENT ASSIGNEE(S): BASF Aktiengesellschaft, Germany  
 SOURCE: PCT Int. Appl., 15 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003011845	A1	20030213	WO 2002-EP8487	20020730
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10137543	A1	20030213	DE 2001-10137543	20010801
CA 2455718	A1	20030213	CA 2002-2455718	20020730
AU 2002333286	A1	20030217	AU 2002-333286	20020730
EP 1417192	A1	20040512	EP 2002-791483	20020730
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
BR 2002011574	A	20040629	BR 2002-11574	20020730
CN 1538962	A	20041020	CN 2002-815207	20020730
MX 2004PA00782	A	20040521	MX 2004-PA782	20040126
ZA 2004000765	A	20050131	ZA 2004-765	20040130
IN 2004CN00190	A	20051209	IN 2004-CN190	20040130
US 2004192946	A1	20040930	US 2004-485104	20040202
PRIORITY APPLN. INFO.:				
			DE 2001-10137543	A 20010801
			WO 2002-EP8487	W 20020730
REFERENCE COUNT:	7	THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT		

L8 ANSWER 9 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN  
 AB In this catalytic process H<sub>2</sub>O<sub>2</sub> is produced directly from H and O-containing feeds by contacting them with a phase-controlled supported noble metal catalyst and a suitable organic liquid solvent having a Solvent Selection Parameter (SSP) between 0.14+10<sup>-4</sup> and 5.0+10<sup>-4</sup>, at 0-100° and 100-3,000 psig pressure. Unconverted feed gas and organic liquid solvent solution are recovered and recycled back to the reactor along with any recovered catalyst. If desired, the H<sub>2</sub>O<sub>2</sub> product can be fed together with an organic chemical feedstock such as propylene and the organic liquid solvent solution into a 2nd catalytic reaction step which oxidizes the feedstock to produce a desired crude oxidized organic product such as propylene oxide. This product can be purified by distillation and recovered from the solvent solution

ACCESSION NUMBER: 2002:595334 CAPLUS  
 DOCUMENT NUMBER: 137:142559

TITLE: Catalytic direct production of hydrogen peroxide from hydrogen and oxygen feeds  
 INVENTOR(S): Zhou, Bing; Rueter, Michael A.; Lee, Lap-keung; Pelrine, Bruce P.  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 13 pp., Cont.-in-part of U.S. Ser. No. 733,154.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 4  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002106320	A1	20020808	US 2001-867190	20010529
US 6576214	B2	20030610		
US 2001016187	A1	20010823	US 2000-733154	20001208
US 6500968	B2	20021231		
US 2003232004	A1	20031218	US 2003-431693	20030507
US 6919065	B2	20050719		

PRIORITY APPLN. INFO.:  
 US 2000-733154 A2 20001208  
 US 1998-140265 A2 19980826  
 US 2001-867190 A1 20010529

L8 ANSWER 10 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

AB A process for the continuous production of an olefinic oxide such as propylene oxide by direct catalytic oxidation of an olefin with hydrogen peroxide. The process involves successive reaction, distillation, decomposition, phase separation, condensation and distillation with recycle of various streams to provide improved catalyst life and reaction selectivity.

ACCESSION NUMBER: 2002:142693 CAPLUS

DOCUMENT NUMBER: 136:184271

TITLE: Process for the continuous production of an olefinic oxide

INVENTOR(S): Forlin, Anna; Papparatto, Giuseppe; Tegon, Paolo

PATENT ASSIGNEE(S): Enichem S.p.A., Italy

SOURCE: PCT Int. Appl., 30 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002014298	A1	20020221	WO 2001-EP9334	20010813
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
IT 2000MI1882	A1	20020211	IT 2000-MI1882	20000811
IT 1318680	B1	20030827		
CA 2416554	A1	20020221	CA 2001-2416554	20010813
AU 200193763	A	20020225	AU 2001-93763	20010813
EP 1313722	A1	20030528	EP 2001-974175	20010813
EP 1313722	B1	20040630		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

BR 2001013261	A	20040113	BR 2001-13261	20010813
AT 270282	T	20040715	AT 2001-974175	20010813
JP 2004525073	T	20040819	JP 2002-519440	20010813
ES 2219565	T3	20041201	ES 2001-1974175	20010813
IN 2003CN00241	A	20050408	IN 2003-CN241	20030210
US 2004181081	A1	20040916	US 2003-344441	20031027
US 7138534	B2	20061121		

PRIORITY APPLN. INFO.: IT 2000-MI1882 A 20000811  
WO 2001-EP9334 W 20010813

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 11 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

AB The invention relates to a method for the production of propylene oxide in the presence of methanol, during which propylene oxide is separated and the remaining methanol-containing mixture is worked up. The invention is characterized in that on working up, methanol is separated from its mixture containing the byproduct Me formate. This provides

a more pure methanol fraction for recycling to the production of propylene oxide from propene and hydrogen peroxide. In an example, recycled methanol containing < 10 ppm Me formate was obtained, compared to 50-120 ppm for a prior-art process. The Me formate content of the produced propylene oxide was < 10 ppm compared to 1000-2500 ppm for the prior-art process.

ACCESSION NUMBER: 2002:31434 CAPLUS  
DOCUMENT NUMBER: 136:86222  
TITLE: Production of propylene oxide  
INVENTOR(S): Teles, Joaquim Henrique; Rehfinger, Alwin; Baszler, Peter; Wenzel, Anne; Reiber, Norbert; Rudolf, Peter  
PATENT ASSIGNEE(S): Basf A.-G., Germany  
SOURCE: PCT Int. Appl., 26 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002002545	A1	20020110	WO 2001-EP7717	20010705
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
DE 10032885	A1	20020117	DE 2000-10032885	20000706
CA 2414779	A1	20030106	CA 2001-2414779	20010705
EP 1296969	A1	20030402	EP 2001-945339	20010705
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2001012226	A	20030506	BR 2001-12226	20010705
RU 2276668	C2	20060520	RU 2003-103589	20010705
TW 588045	B	20040521	TW 2001-90116598	20010706
US 2003146080	A1	20030807	US 2003-312884	20030102
US 6849162	B2	20050201		
IN 2003CN00018	A	20050408	IN 2003-CN18	20030103
ZA 2003000103	A	20040225	ZA 2003-103	20030106
MX 2003PA00016	A	20030925	MX 2003-PA16	20030107

PRIORITY APPLN. INFO.: DE 2000-10032885 A 20000706

REFERENCE COUNT:

9

THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 12 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

AB The invention relates to a method for the production of propylene oxide, whereby (i) propylene is reacted with hydrogen peroxide in the presence of methanol to form propylene oxide, resulting in a mixture (Gi), comprising propylene oxide, methanol, water, and unreacted hydrogen peroxide, (ii) a second mixture (Gii), comprising methanol, water, and hydrogen peroxide is separated from Gi, yielding a third mixture comprising propylene oxide. Water is separated off from Gii to give a fourth mixture comprising methanol

and

Me formate. The process provides for a more complete and economical conversion of hydrogen peroxide than prior-art methods.

ACCESSION NUMBER: 2002:31433 CAPLUS

DOCUMENT NUMBER: 136:86221

TITLE: Production of propylene oxide

INVENTOR(S): Teles, Joaquim Henrique; Rehfinger, Alwin; Bassler, Peter; Wenzel, Anne; Rieber, Norbert; Rudolf, Peter

PATENT ASSIGNEE(S): Basf Aktiengesellschaft, Germany

SOURCE: PCT Int. Appl., 27 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002002544	A1	20020110	WO 2001-EP7716	20010705
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
DE 10032884	A1	20020124	DE 2000-10032884	20000706
AU 200189624	A	20020114	AU 2001-89624	20010705
CA 2414756	A1	20030106	CA 2001-2414756	20010705
EP 1296968	A1	20030402	EP 2001-969340	20010705
EP 1296968	B1	20041103		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
BR 2001012218	A	20030506	BR 2001-12218	20010705
AT 281442	T	20041115	AT 2001-969340	20010705
RU 2277089	C2	20060527	RU 2003-103590	20010705
TW 583181	B	20040411	TW 2001-90116609	20010706
US 2003144535	A1	20030731	US 2003-312862	20030102
US 6756503	B2	20040629		
IN 2003CN00017	A	20050408	IN 2003-CN17	20030103
ZA 2003000106	A	20040121	ZA 2003-106	20030106
MX 2003PA00017	A	20030925	MX 2003-PA17	20030107
PRIORITY APPLN. INFO.:			DE 2000-10032884	A 20000706
			WO 2001-EP7716	W 20010705

REFERENCE COUNT:

2

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 13 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

AB Propylene oxide is manufactured in a three-stage process from propylene, oxygen, and hydrogen. The first reaction step is the oxidation of isopropanol/water with mol. oxygen in a reaction-distillation column (approx. 500 psi and 350° F.), to produce hydrogen peroxide and acetone. The column is configured with an upper high liquid holdup reaction zone and a lower short residence time stripping zone. Inert gas circulating through the column effects separation of the hydrogen peroxide as part of the bottoms fraction and acetone as part of the distillate fraction. The liquid part of the distillate fraction comprising acetone, isopropanol and water is then reacted with hydrogen (second reaction step) under reactive-distn conditions to convert the contained acetone back to isopropanol for subsequent recycle to the first reaction step. The third reaction step is the epoxidn. of propylene (in stoichiometric excess) with the hydrogen peroxide solution, typically in the presence of a titanium silicalite catalyst. The reaction is performed in a series of fixed bed adiabatic reactors with intercooling. Product separation is by conventional distillation. Unreacted propylene is recycled to the epoxidn. step and water/isopropanol to the first reaction step.

ACCESSION NUMBER: 2002:23864 CAPLUS  
DOCUMENT NUMBER: 136:70254  
TITLE: Three-stage process for manufacturing of propylene oxide  
INVENTOR(S): Gelbein, Abraham P.  
PATENT ASSIGNEE(S): Chemical Research & Licensing Company, USA  
SOURCE: U.S., 9 pp.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6337412	B1	20020108	US 2001-841427	20010424
WO 2002085876	A1	20021031	WO 2001-US49838	20011228
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002245164	A1	20021105	AU 2002-245164	20011228
PRIORITY APPLN. INFO.:			US 2000-199564P	P 20000425
			US 2001-841427	A 20010424
			WO 2001-US49838	W 20011228
REFERENCE COUNT:	17	THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT		

L8 ANSWER 14 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN  
AB An epoxidn. process is presented for producing epoxides (e.g., propylene oxide) by reacting an olefin (e.g., propylene) with a peroxide (e.g., hydrogen peroxide) in the presence of a catalyst (e.g., particulate titanium silicalite), which process consists of introducing the peroxide only in the first reactor, the subsequent reactor(s) not being supplied with fresh peroxide but only with the peroxide which is present in the medium derived from the preceding reactor and which has not been consumed in said preceding reactor. A process flow diagram is presented.

ACCESSION NUMBER: 2002:10456 CAPLUS



DOCUMENT NUMBER: 136:54202  
 TITLE: Epoxidation process for the preparation of epoxides from reaction of peroxides with alkenes using at least two reactors containing fluidized beds of titanium silicalite catalyst  
 INVENTOR(S): Balthasart, Dominique  
 PATENT ASSIGNEE(S): Solvay (Societe Anonyme), Belg.  
 SOURCE: PCT Int. Appl., 18 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002000637	A1	20020103	WO 2001-EP7273	20010626
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
FR 2810983	A1	20020104	FR 2000-8355	20000628
FR 2810983	B1	20040521		
CA 2412546	A1	20020103	CA 2001-2412546	20010626
AU 200187559	A	20020108	AU 2001-87559	20010626
EP 1299371	A1	20030409	EP 2001-967093	20010626
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2001011973	A	20030701	BR 2001-11973	20010626
JP 2004501908	T	20040122	JP 2002-505385	20010626
RU 2256656	C2	20050720	RU 2003-102385	20010626
ZA 2002010159	A	20040315	ZA 2002-10159	20021213
MX 2002PA12665	A	20030514	MX 2002-PA12665	20021218
US 2003109726	A1	20030612	US 2002-311308	20021227
US 6677467	B2	20040113		
US 2004039216	A1	20040226	US 2003-650730	20030829
US 6838571	B2	20050104		
PRIORITY APPLN. INFO.:			FR 2000-8355	A 20000628
			WO 2001-EP7273	W 20010626
			US 2002-311308	A1 20021227
REFERENCE COUNT:	2	THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT		

L8 ANSWER 15 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN  
 AB An epoxidn. method for making epoxides (e.g., propylene oxide) is described which comprises reacting an olefin (e.g., propylene) with a peroxide (e.g., aqueous hydrogen peroxide) in the presence of a catalyst (e.g., TS-1 zeolite) and a solvent (e.g., methanol) in at least two reactors arranged in series each containing part of the catalyst, where the novelty of the method consists on carrying out two epoxidn. reactions in series with an intermediate distillation so as to minimize the formation of byproducts. A process flow diagram is presented.

ACCESSION NUMBER: 2002:10454 CAPLUS  
 DOCUMENT NUMBER: 136:54200  
 TITLE: Epoxidation process and catalysts for producing epoxides from alkenes and peroxides using serial reactors  
 INVENTOR(S): Balthasart, Dominique  
 PATENT ASSIGNEE(S): Solvay (Societe Anonyme), Belg.  
 SOURCE: PCT Int. Appl., 19 pp.

DOCUMENT TYPE: Patent  
LANGUAGE: French  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

CODEN: PIXXD2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002000635	A1	20020103	WO 2001-EP7271	20010626
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
FR 2810982	A1	20020104	FR 2000-8354	20000628
FR 2810982	B1	20020927		
CA 2411790	A1	20020103	CA 2001-2411790	20010626
AU 200176368	A	20020108	AU 2001-76368	20010626
EP 1299369	A1	20030409	EP 2001-953991	20010626
EP 1299369	B1	20050330		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2001011939	A	20030513	BR 2001-11939	20010626
JP 2004501906	T	20040122	JP 2002-505383	20010626
AT 292125	T	20050415	AT 2001-953991	20010626
RU 2259362	C2	20050827	RU 2003-102384	20010626
ES 2239151	T3	20050916	ES 2001-1953991	20010626
ZA 2002010153	A	20040315	ZA 2002-10153	20021213
MX 2002PA12471	A	20030606	MX 2002-PA12471	20021216
US 2003187285	A1	20031002	US 2002-297927	20021219
US 6723861	B2	20040420		
PRIORITY APPLN. INFO.:			FR 2000-8354	A 20000628
			WO 2001-EP7271	W 20010626
REFERENCE COUNT:	1	THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT		

L8 ANSWER 16 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN  
AB A process for producing oxidized organic chemical products such as propylene oxide from various organic chemical feedstocks using as oxidant directly produced hydrogen peroxide (H2O2) intermediate oxidizing agent. The hydrogen peroxide intermediate is directly produced from hydrogen and oxygen feeds plus a suitable solvent in a first catalytic reaction step using an active supported phase-controlled noble metal catalyst at reaction conditions of 0-100°. temperature and 300-3,000 psig pressure. An organic chemical feedstock such as propylene together with the hydrogen peroxide intermediate and solvent solution are fed into a second catalytic reactor maintained at 0-150°. temperature and 15-1,500 psig pressure and oxidized to produce a desired crude oxidized organic product such as propylene oxide, which is purified by distillation steps and recovered from the solvent solution

ACCESSION NUMBER: 2001:618412 CAPLUS  
DOCUMENT NUMBER: 135:167154  
TITLE: Process for selective oxidation of organic feedstocks with hydrogen peroxide  
INVENTOR(S): Zhou, Bing; Rueter, Michael A.  
PATENT ASSIGNEE(S): Hydrocarbon Technologies, Inc., USA  
SOURCE: U.S. Pat. Appl. Publ., 8 pp., Cont.-in-part of U.S. 6,168,775.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2001016187	A1	20010823	US 2000-733154	20001208
US 6500968	B2	20021231		
W0 US 6168775	B1	20010102	US 1998-140265	19980826
US 2002106320	A1	20020808	US 2001-867190	20010529
US 6576214	B2	20030610		
US 6500969	B1	20021231	US 2001-14068	20011211
US 2003232004	A1	20031218	US 2003-431693	20030507
US 6919065	B2	20050719		
PRIORITY APPLN. INFO.:			US 1998-140265	A2 19980826
			US 2000-733154	A2 20001208
			US 2001-867190	A1 20010529

L8 ANSWER 17 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN  
AB A continuous process for the epoxidn. of olefins (e.g., methyloxirane from propylene) with hydrogen peroxide using a product-stream predistn. step and unit is described and a process flow diagram presented.

ACCESSION NUMBER: 2001:581493 CAPLUS  
DOCUMENT NUMBER: 135:137842  
TITLE: Process for the epoxidation of olefins using a product-stream predistillation step and unit  
INVENTOR(S): Hofen, Willi; Thiele, Georg; Moller, Alexander  
PATENT ASSIGNEE(S): Degussa A.-G., Germany  
SOURCE: Eur. Pat. Appl., 10 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
W0 EP 1122248	A1	20010808	EP 2000-102544	20000207
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
CA 2399129	A1	20010809	CA 2001-2399129	20010203
WO 2001057010	A1	20010809	WO 2001-EP1166	20010203
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
BR 2001008063	A	20021105	BR 2001-8063	20010203
EP 1254126	A1	20021106	EP 2001-911586	20010203
EP 1254126	B1	20030702		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
AT 244231	T	20030715	AT 2001-911586	20010203
JP 2003521544	T	20030715	JP 2001-556860	20010203
ES 2202281	T3	20040401	ES 2001-1911586	20010203
ZA 2002005200	A	20030929	ZA 2002-5200	20020627
NO 2002003553	A	20020725	NO 2002-3553	20020725
US 2003114694	A1	20030619	US 2002-203184	20021004
US 6646141	B2	20031111		
PRIORITY APPLN. INFO.:			EP 2000-102544	A 20000207
			WO 2001-EP1166	W 20010203

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 18 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN  
AB Propylene is oxidized at low cost by H2O2 in the presence of titanasilicate catalysts, wherein the hydrogen peroxide is prepared via alkylanthraquinone method without distillation and contains  $\leq 150$  ppm of stabilizers (based on 100% H2O2). Thus, propylene oxide was obtained by using H2O2 (phosphoric acid and pyrophosphoric acid content 100 ppm) prepared via hydrogenation of 2-amyl anthraquinone, showing H2O2 conversion 95% and propylene oxide selectivity 90%.

ACCESSION NUMBER: 2000:62626 CAPLUS  
DOCUMENT NUMBER: 132:108453  
TITLE: Manufacture of propylene oxide with efficiency  
INVENTOR(S): Kondo, Osamu; Kurai, Toshikiyo; Kijima, Yasuhiko  
PATENT ASSIGNEE(S): Mitsubishi Gas Chemical Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000026439	A	20000125	JP 1998-189130	19980703
PRIORITY APPLN. INFO.:			JP 1998-189130	19980703

L8 ANSWER 19 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN  
AB Propylene oxide obtained by an epoxidn. process which uses methanol as solvent, hydrogen peroxide as oxidant, and titanium-containing zeolite as catalyst may be effectively treated to remove acetaldehyde by subjecting the crude epoxidn. reaction product to fractional distillation. The methanol solvent is utilized during such distillation to lower the relative volatility of the acetaldehyde impurity, thereby making it possible to obtain a bottoms fraction containing substantially all the acetaldehyde. Purified propylene oxide having a reduced acetaldehyde concentration is removed as an overhead stream. Water may also be effectively separated from the propylene oxide using this procedure.

ACCESSION NUMBER: 1999:126887 CAPLUS  
DOCUMENT NUMBER: 130:182867  
TITLE: Propylene oxide purification  
INVENTOR(S): Rueter, Michael A.  
PATENT ASSIGNEE(S): Arco Chemical Technology, L.P., USA; Arco Chemie Technologie Nederland B.V.  
SOURCE: PCT Int. Appl., 16 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9907690	A1	19990218	WO 1998-EP4693	19980727
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,			

20 CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  
 US 6024840 A 20000215 US 1997-908604 19970808  
 CA 2300083 A1 19990218 CA 1998-2300083 19980727  
 AU 9890697 A 19990301 AU 1998-90697 19980727  
 EP 1003733 A1 20000531 EP 1998-942636 19980727  
 EP 1003733 B1 20020403  
 R: BE, DE, ES, FR, GB, IT, NL  
 BR 9811144 A 20000718 BR 1998-11144 19980727  
 JP 2001512721 T 20010828 JP 2000-506194 19980727  
 ES 2174476 T3 20021101 ES 1998-942636 19980727  
 MX 200001292 A 20001030 MX 2000-1292 20000204  
 PRIORITY APPLN. INFO.: US 1997-908604 A 19970808  
 WO 1998-EP4693 W 19980727

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 20 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN  
 AB Propylene oxide (I) is prepared from propylene  
 (II) and H2O2 using solvents which form a heterogeneous azeotrope with  
 water and are inert to II or H2O2 in the presence of organic monocarboxylic  
 acids when removing introduced or produced water with the solvents and I.  
 Thus, propionic acid 168.7, ClCH2CH2Cl (III) 765.0, and H3BO3 3.0 g/h were  
 preheated at 70° and charged in the 10th section (from the top) of  
 a reactor equipped with a distillation tower having a partial  
 condenser, 43.1 g/h 60% aqueous H2O2 was preheated at 70° and charged  
 in the 20th section of it, and then 63.8 g/h II and 120 L/h N were  
 introduced to the reactor from the bottom, then the bottom of the reactor  
 was heated at 70° in an oil bath. In the reaction, the gas phase  
 containing I, unreacted II, N, and III was eliminated via partial condenser  
 and the liquid phase containing H2O2, propionic acid, and the catalysts  
 was eliminated from the bottom of the reactor. After 10 h reaction, the  
 gas from the partial condenser comprised 21.4 g/h I (98.0% selectivity)  
 and 47.9 g/h unreacted II.

ACCESSION NUMBER: 1989:232259 CAPLUS  
 DOCUMENT NUMBER: 110:232259  
 TITLE: Preparation of propylene oxide  
 INVENTOR(S): Ueno, Kaoru; Watanabe, Keisuke; Masuda, Takayoshi  
 PATENT ASSIGNEE(S): Mitsui Toatsu Chemicals, Inc., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 64000079	A	19890105	JP 1987-154299	19870623
JP 07084448	B	19950913		
PRIORITY APPLN. INFO.:			JP 1987-154299	19870623

L8 ANSWER 21 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN  
 AB In the title process, C3H6 [115-07-1] is epoxidized by a crude solution of  
 EtC(O)OOH [4212-43-5], prepared from H2O2 and EtCO2H in the presence of  
 very small amts. of strongly acidic catalysts with continuous  
 azeotropic distillation of water. Thus, adding 260 g/h 50% ClCH2CH2Cl  
 solution of EtCO2H and 40.3 g/h 70.7% H2O2 containing 0.33% H2SO4 and 0.5%  
 biphilic acid to a reactor held at 90° with azeotropic  
 distillation of H2O gave a 93.5% yield of EtC(O)OOH as a 25.1% solution  
 This solution was added at 281 g/h together with 98.3 g/h C3H6 to a reactor  
 held at 50°/10 bar to give 350 g/h 13.2% propylene  
 oxide [75-56-9] solution, a yield of 98.3%.

ACCESSION NUMBER: 1983:17188 CAPLUS  
 DOCUMENT NUMBER: 98:17188  
 TITLE: Continuous preparation of propylene

INVENTOR(S): oxide  
Lecoq, Jean Claude; Pralus, Michele; Schirmann, Jean  
Pierre  
PATENT ASSIGNEE(S): Produits Chimiques Ugine Kuhlmann, Fr.  
SOURCE: Eur. Pat. Appl., 20 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: French  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 61393	A1	19820929	EP 1982-400477	19820316
EP 61393	B1	19841031		
R: BE, CH, DE, FR, GB, IT, NL				
FR 2502620	A1	19821001	FR 1981-5811	19810324
FR 2502620	B1	19831110		
ES 510697	A1	19830201	ES 1982-510697	19820323
CA 1182122	A1	19850205	CA 1982-399119	19820323
JP 57169477	A	19821019	JP 1982-45725	19820324
JP 02004223	B	19900126		
PRIORITY APPLN. INFO.:			FR 1981-5811	A 19810324

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COST IN U.S. DOLLARS  
FULL ESTIMATED COST

SINCE FILE ENTRY	TOTAL SESSION
117.23	117.44

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)  
CA SUBSCRIBER PRICE

SINCE FILE ENTRY	TOTAL SESSION
-20.28	-20.28

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FILE CONTAINS CURRENT INFORMATION.  
LAST RELOADED: Jul 20, 2007 (20070720/UP).

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("DIVIDING" (W) "WALL")  
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SINCE FILE ENTRY	TOTAL SESSION
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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE ENTRY	TOTAL SESSION
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CA SUBSCRIBER PRICE

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SESSION WILL BE HELD FOR 120 MINUTES  
STN INTERNATIONAL SESSION SUSPENDED AT 10:07:22 ON 24 JUL 2007